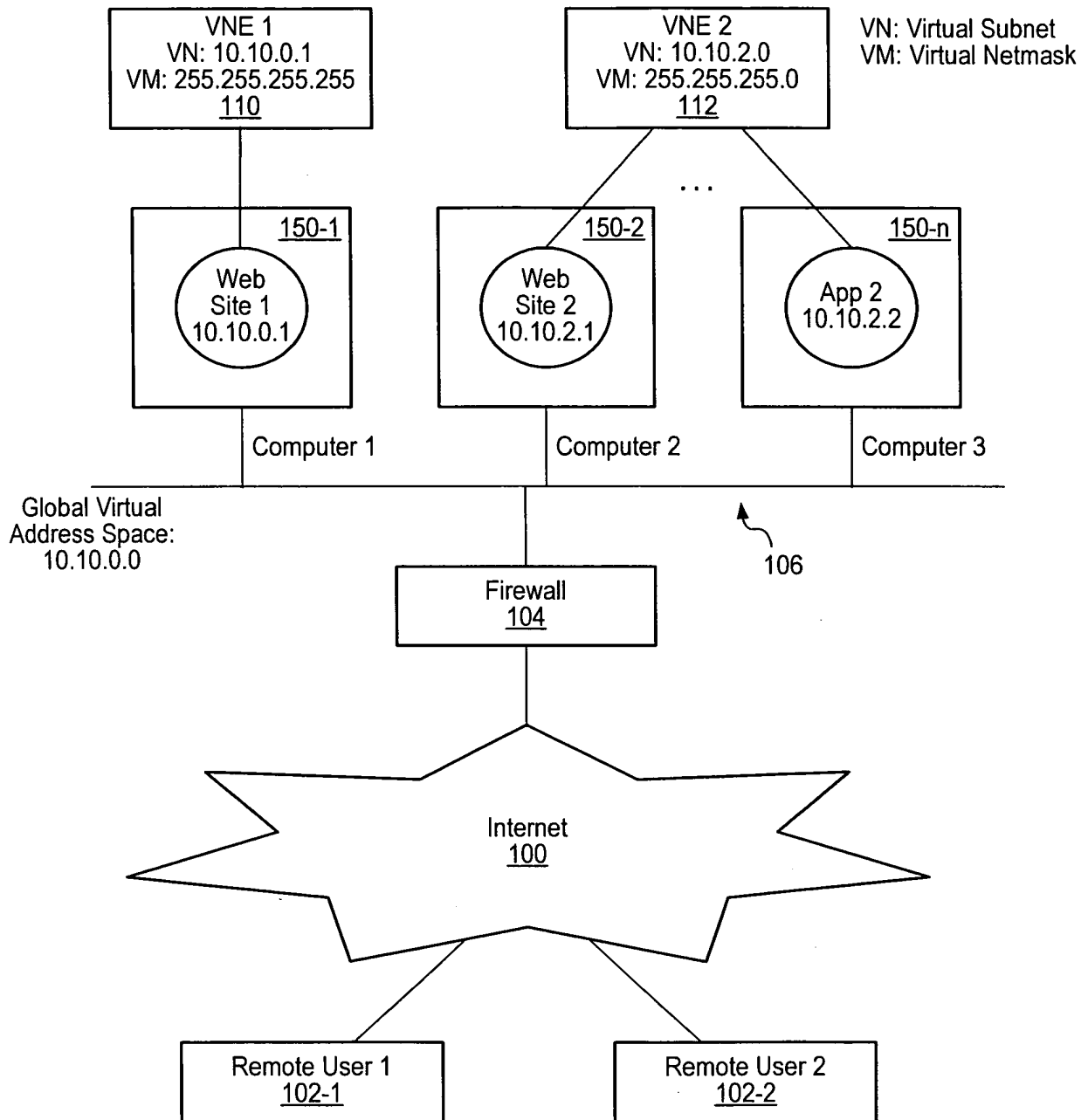




## Replacement Sheet



The above diagram illustrates the virtual network environments. Virtual Network Environment 1 contains one application WEB SITE 1, is defined by the Virtual Network Address 10.10.0.1 resides solely on computer 1. Virtual Network Environment 2 contains two applications, WEB SITE 2 and APP 2, and spans two computers, Computer 2 and Computer 3. The virtual network of VNE 2 is 10.10.2.0.

*Fig. 1*



# Replacement Sheet

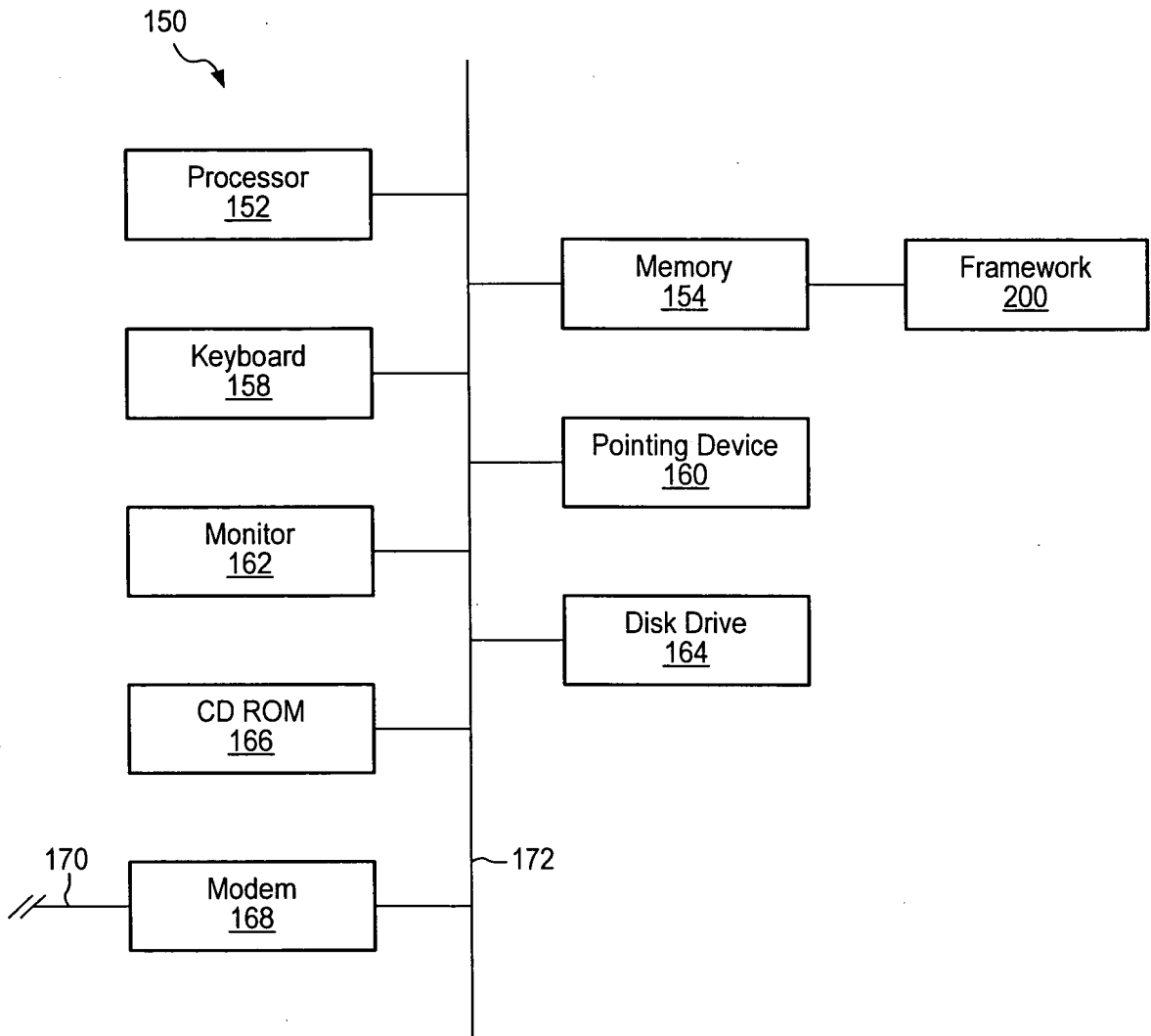
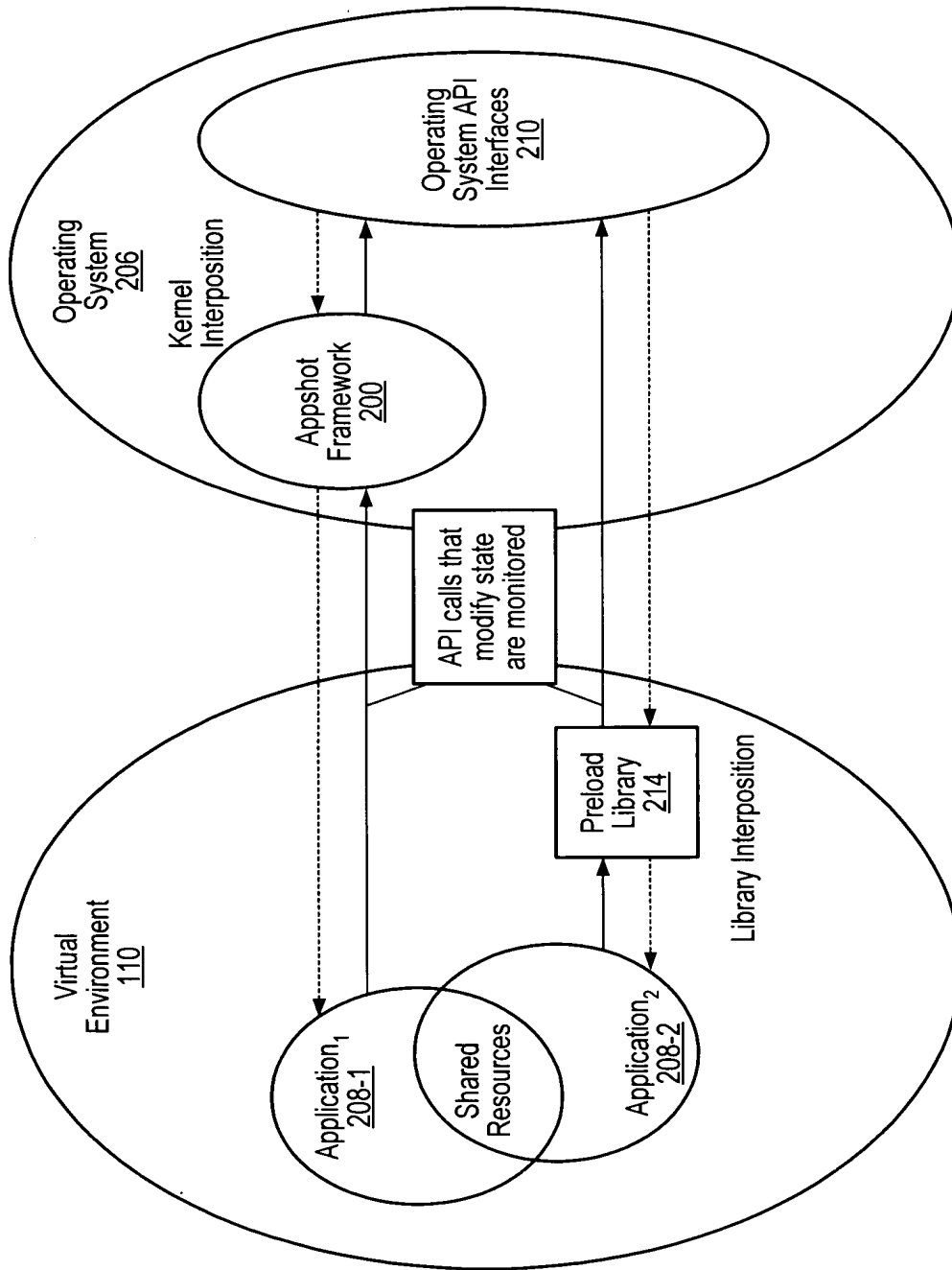


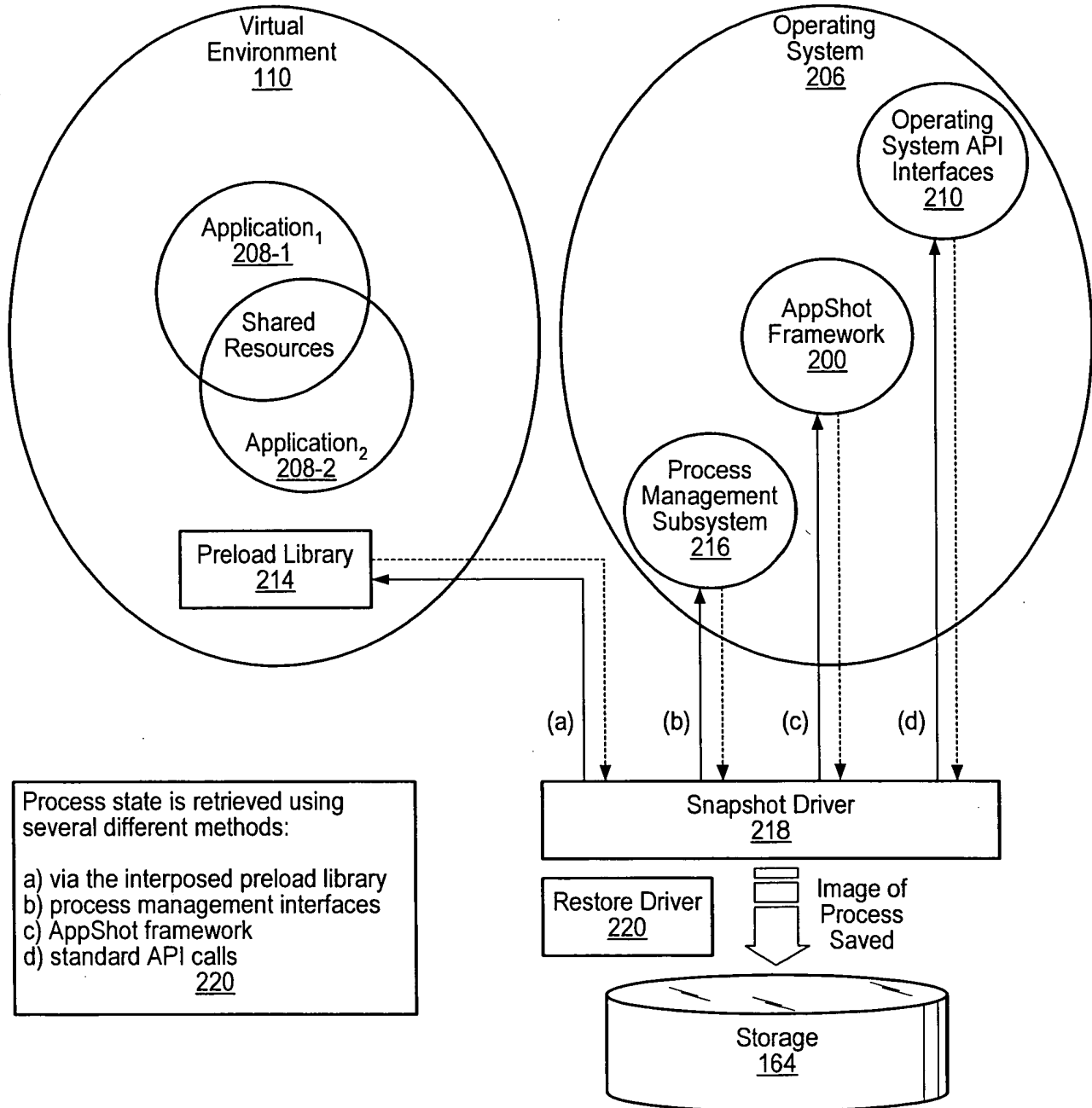
Fig. 2



Tracking application state via library and kernel interposition.

Fig. 3

# Replacement Sheet



Capture of an application's run-time state.

**Fig. 4**

# Replacement Sheet

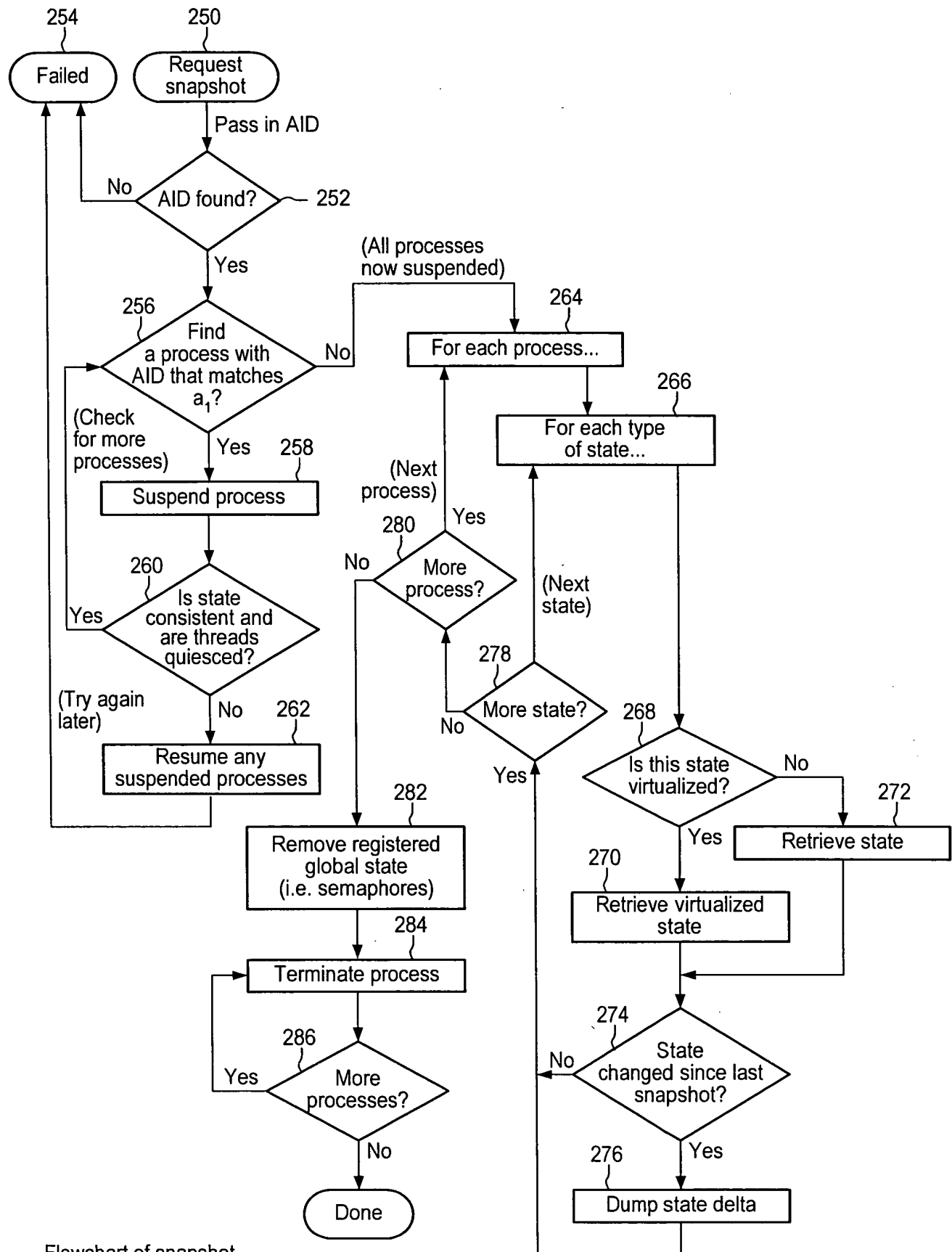


Fig. 5

# Replacement Sheet

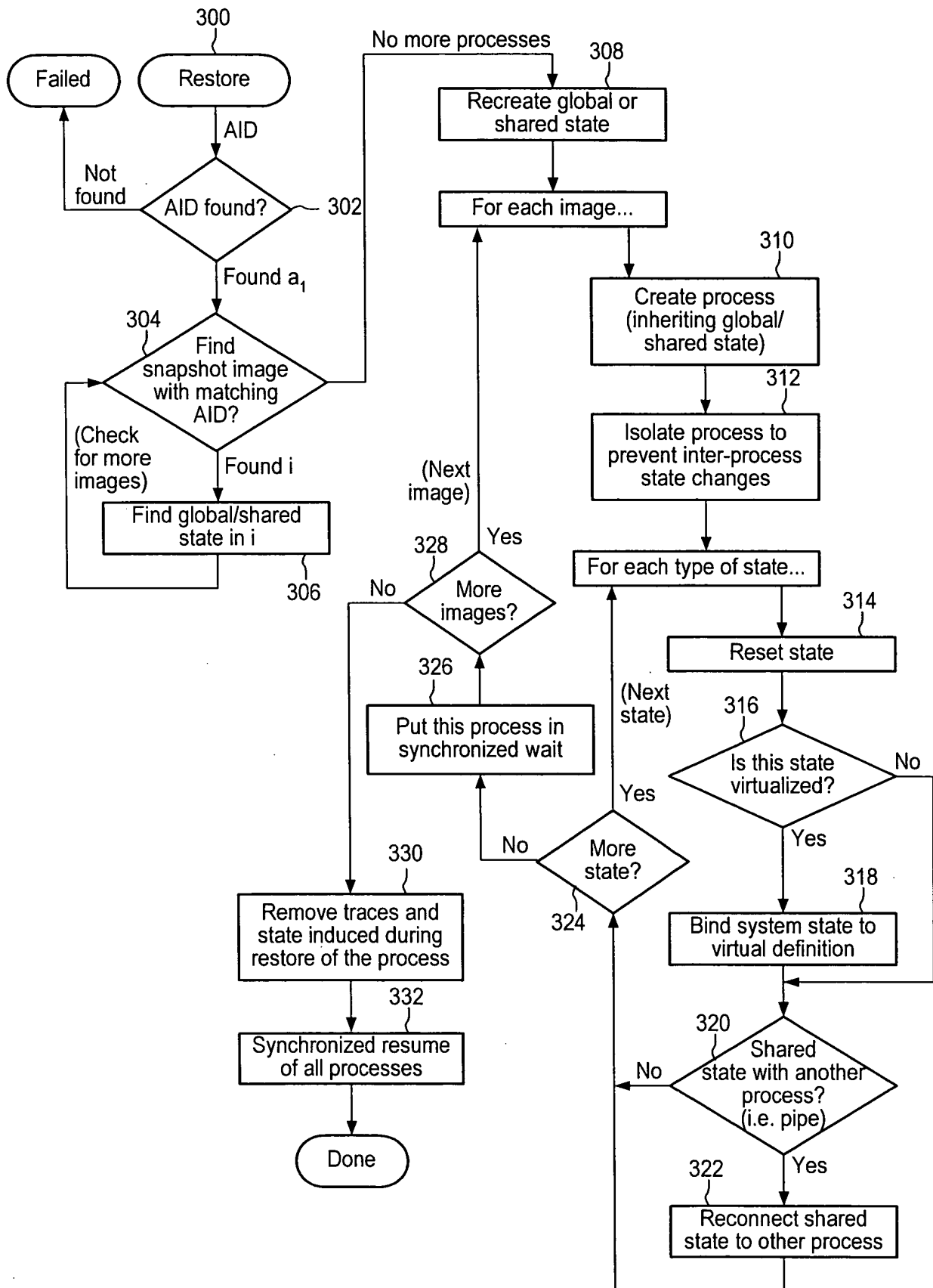
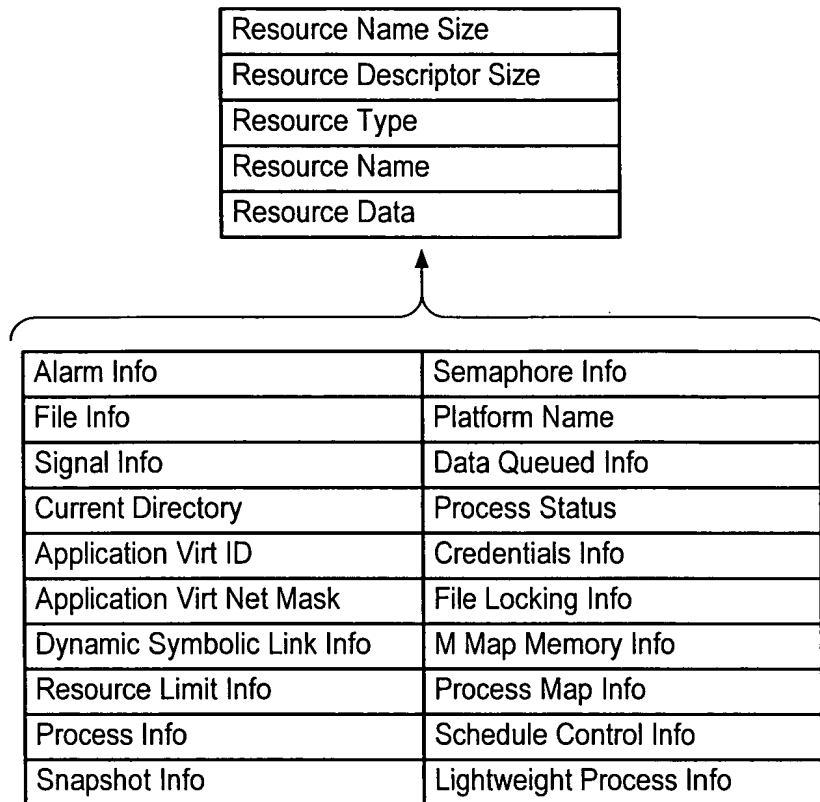


Fig. 6

## Replacement Sheet



*Fig. 7*

## Replacement Sheet

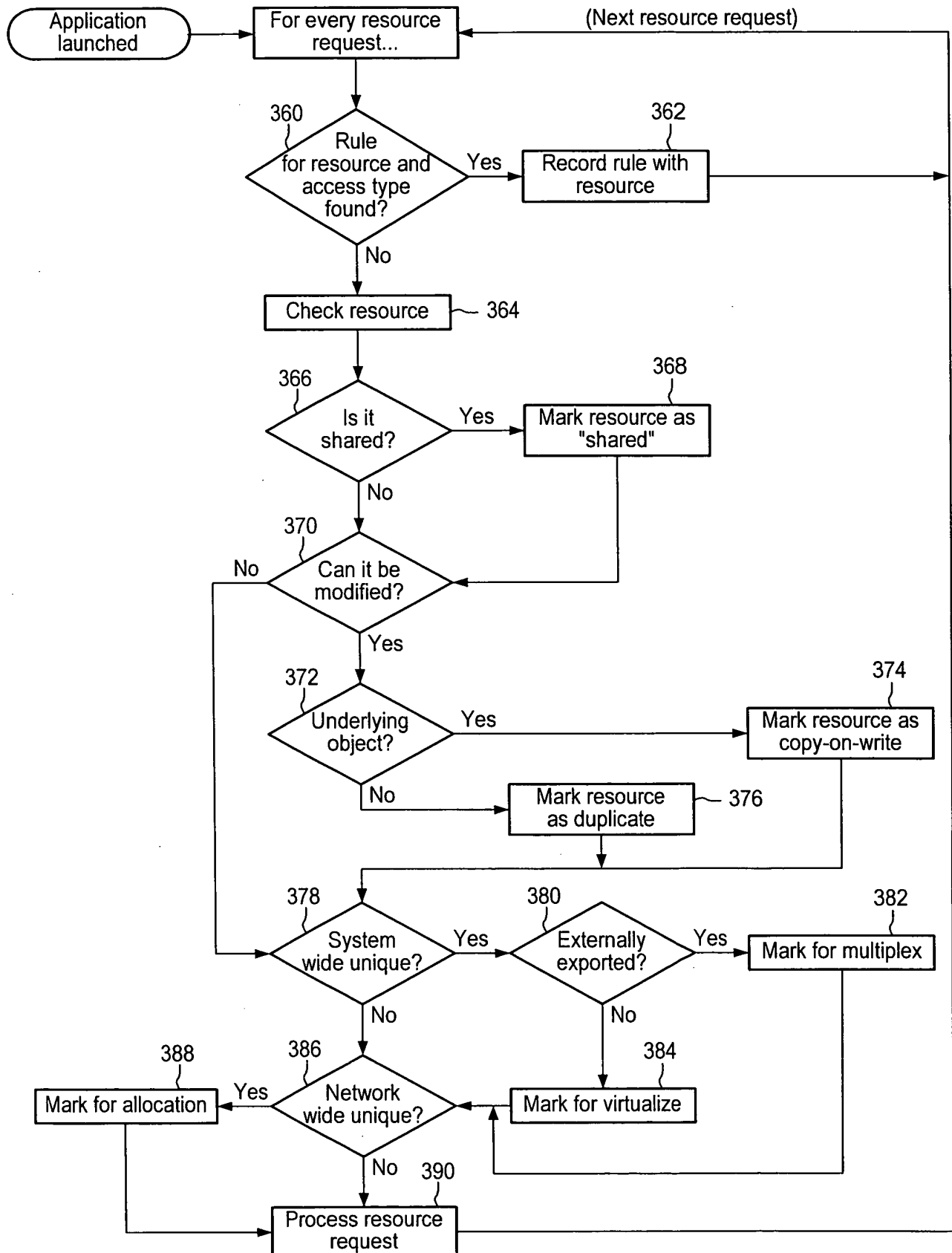


Fig. 8



## Replacement Sheet

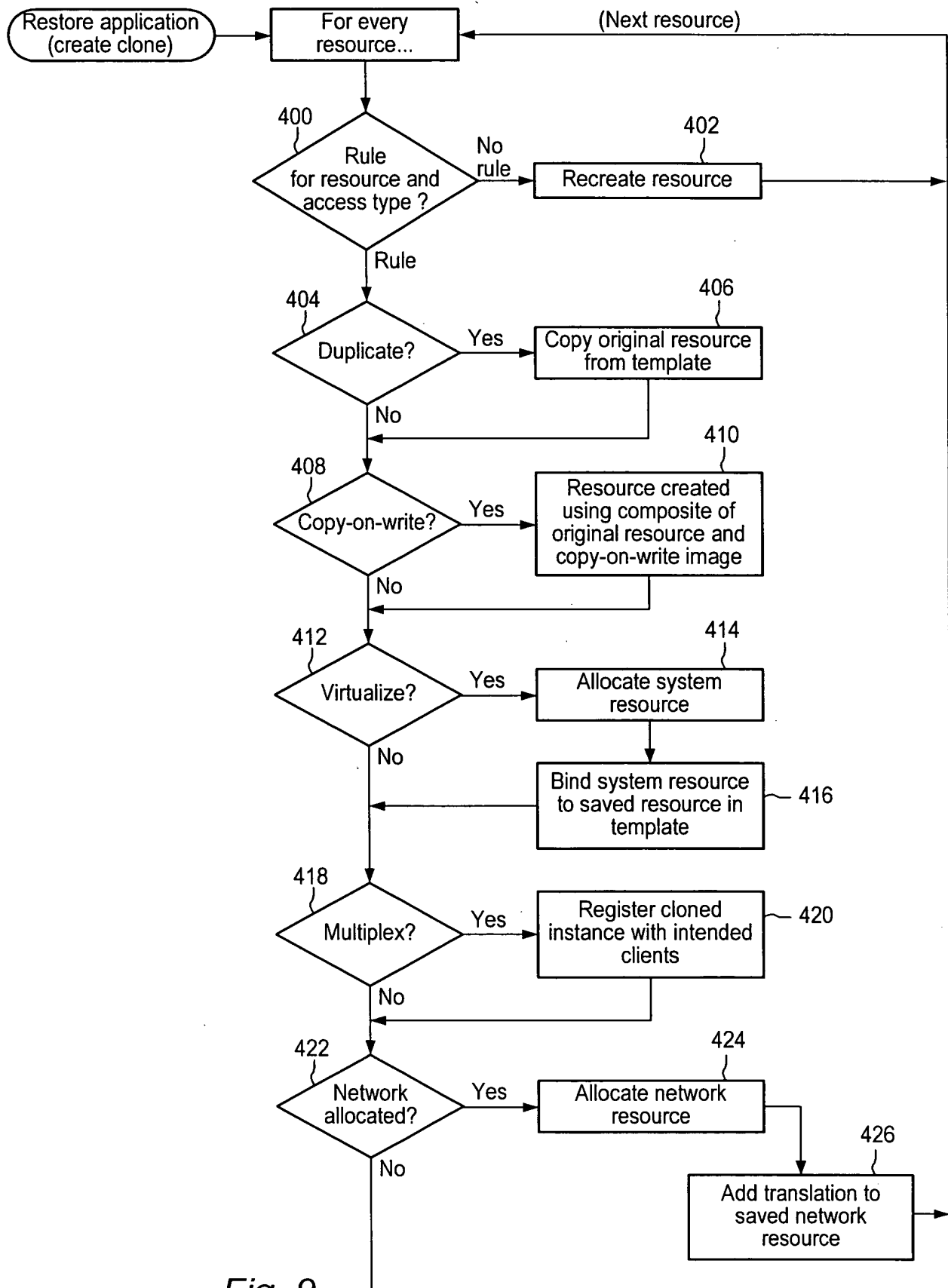
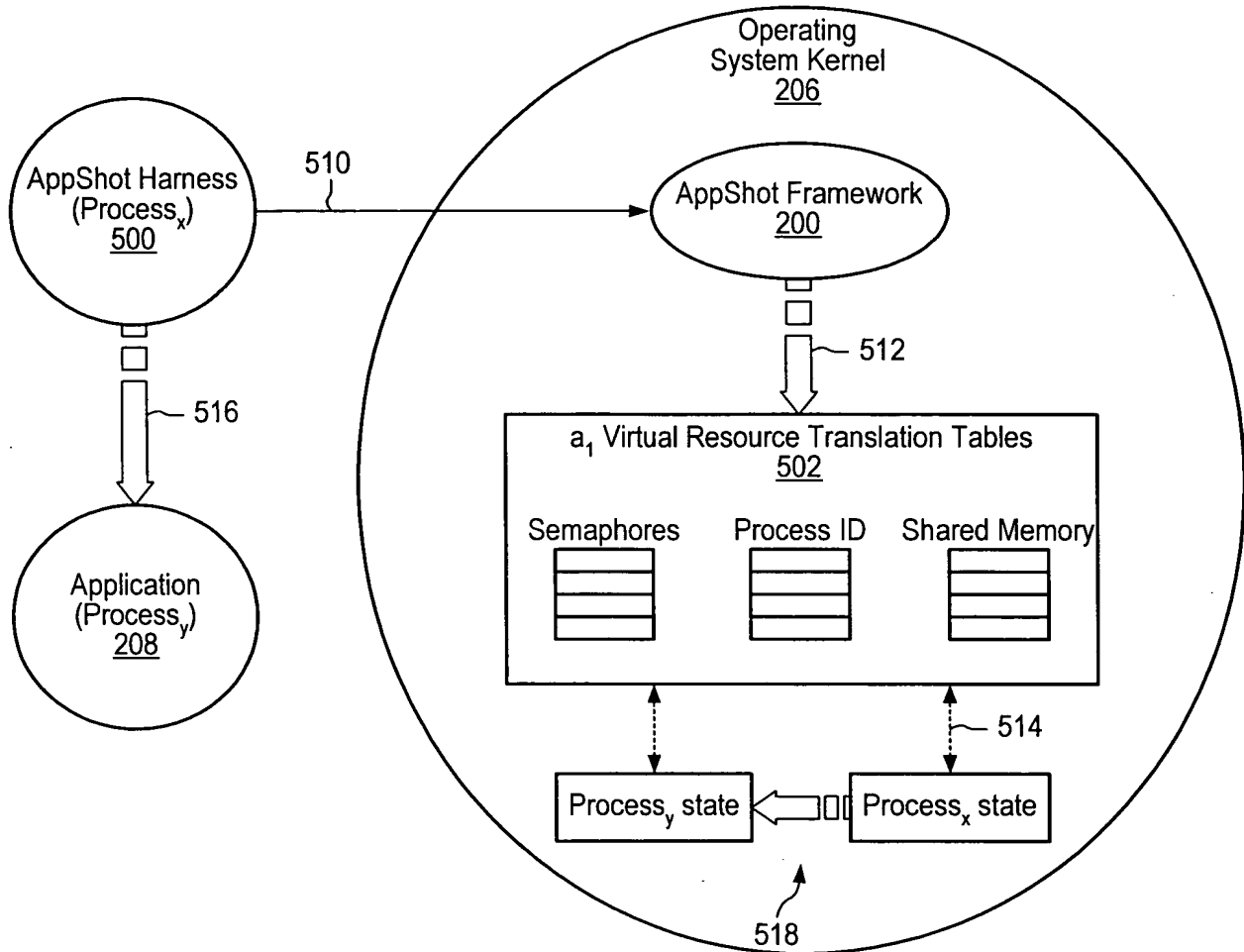


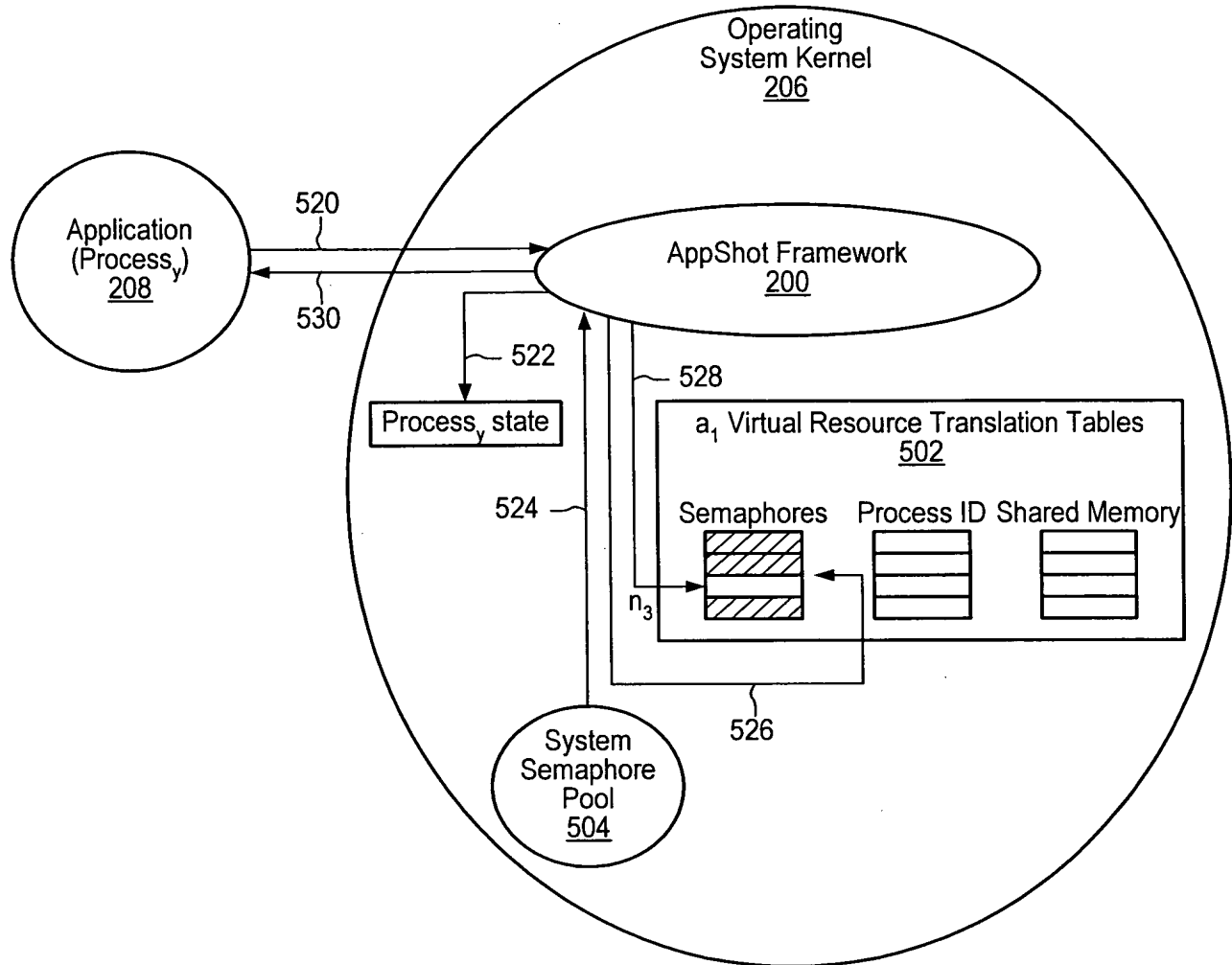
Fig. 9



Registration of an application using virtual resource ID's

Fig. 10

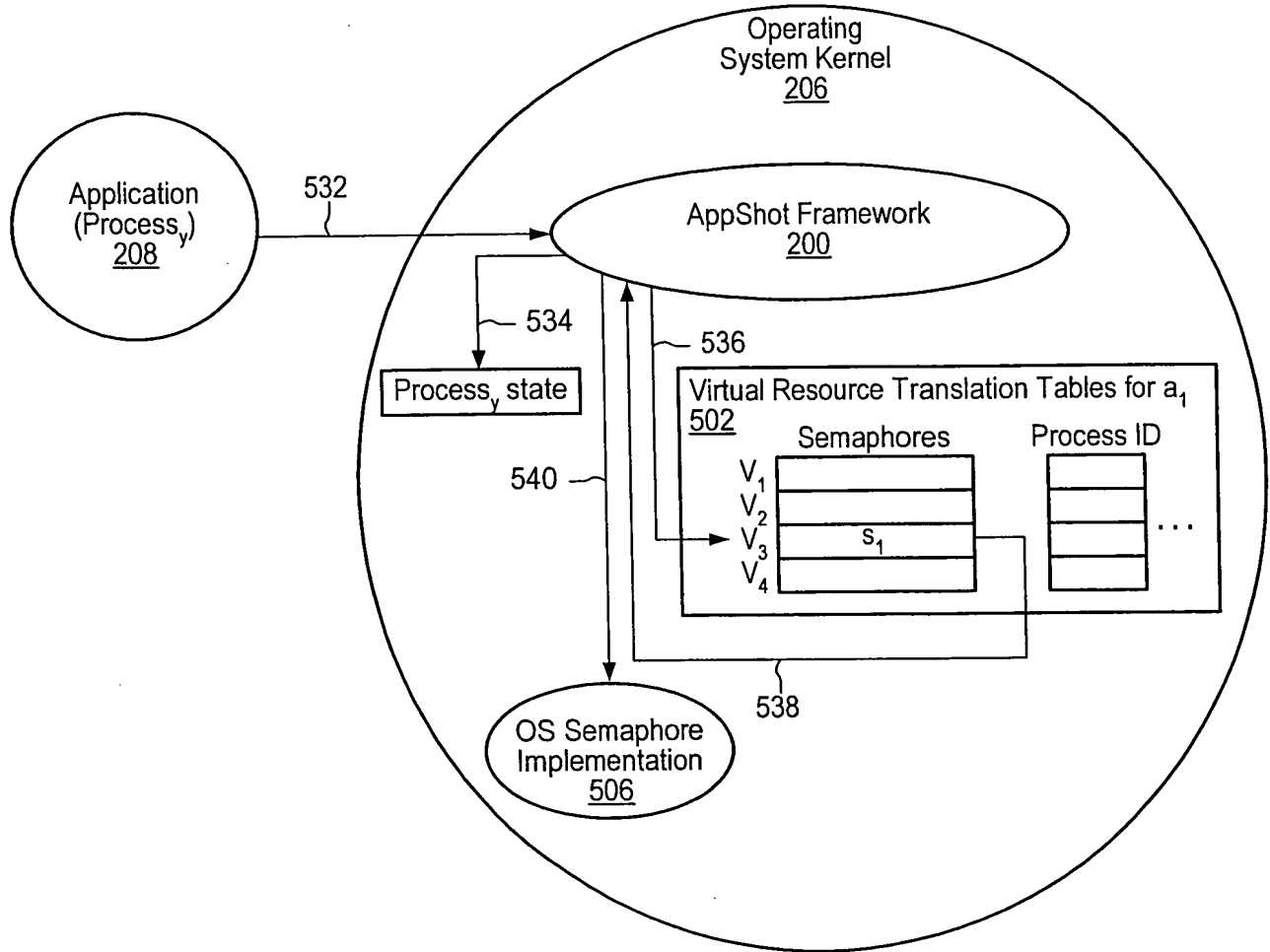
*Replacement Sheet*



Allocation of a virtual resource (i.e. semaphore)

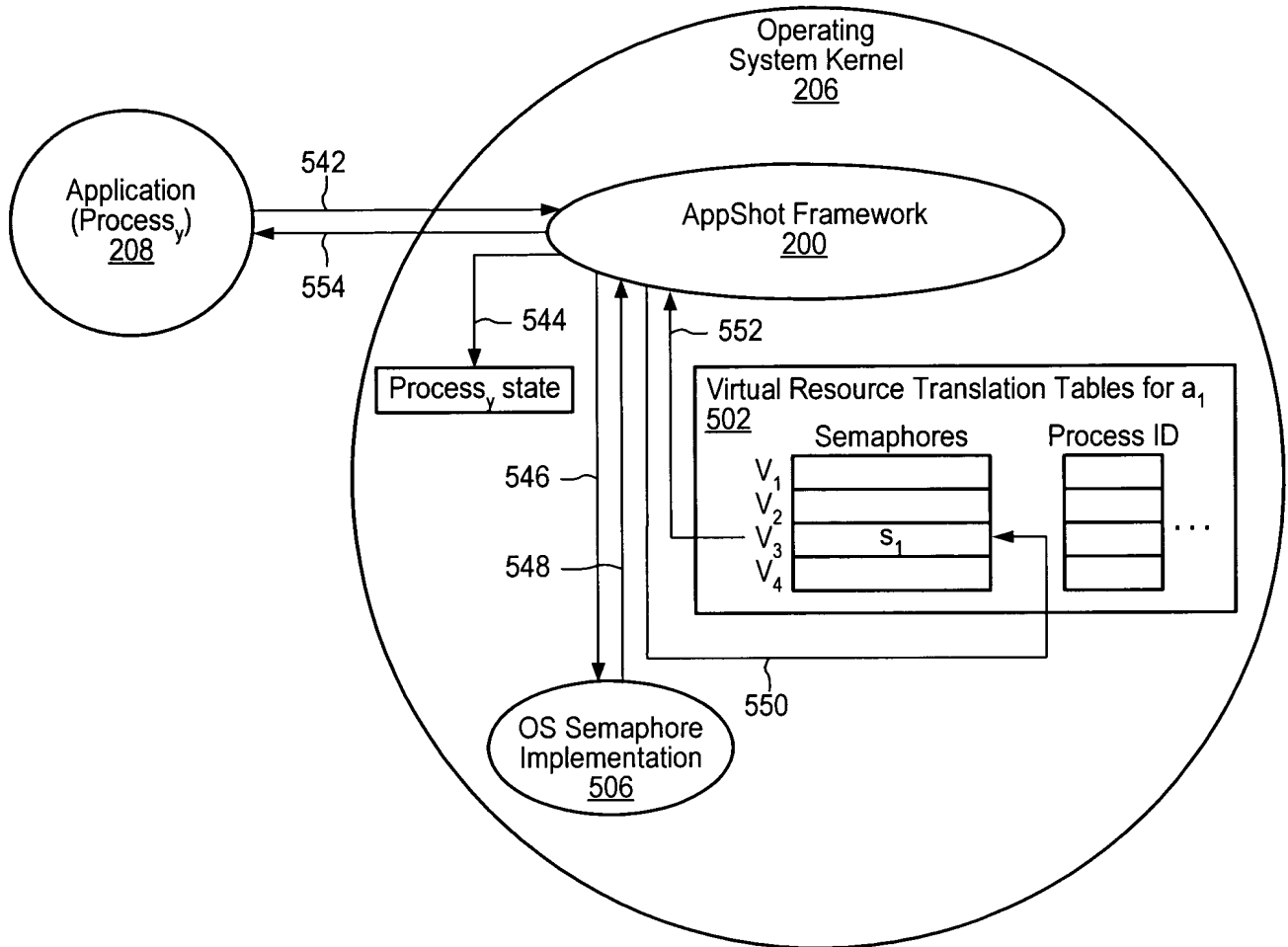
*Fig. 11*

# Replacement Sheet



Translation of a virtual resource (i.e. semaphore), virtual to system

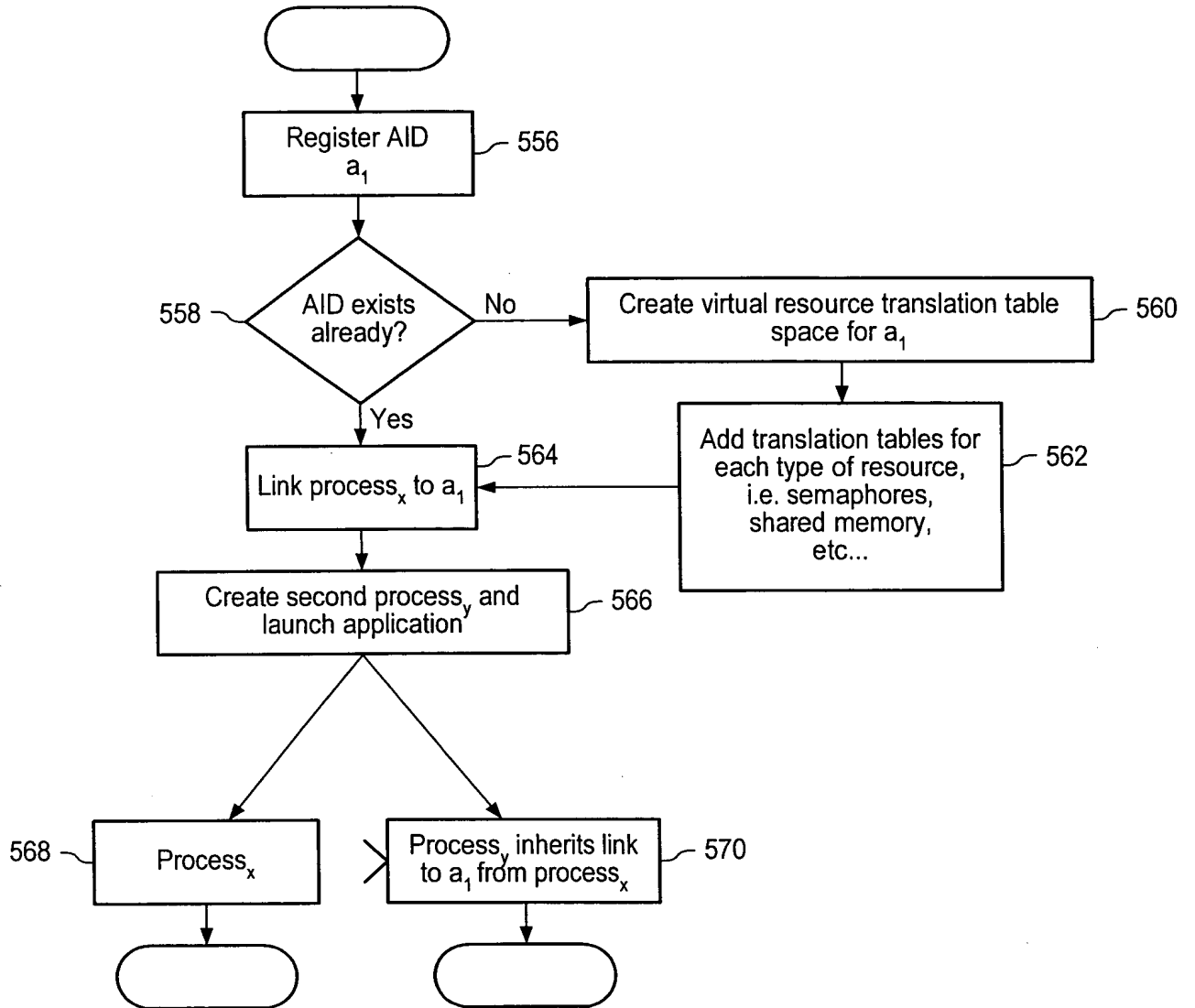
Fig. 12



Reverse Translation of a virtual resource (i.e. semaphore), system to virtual

Fig. 13

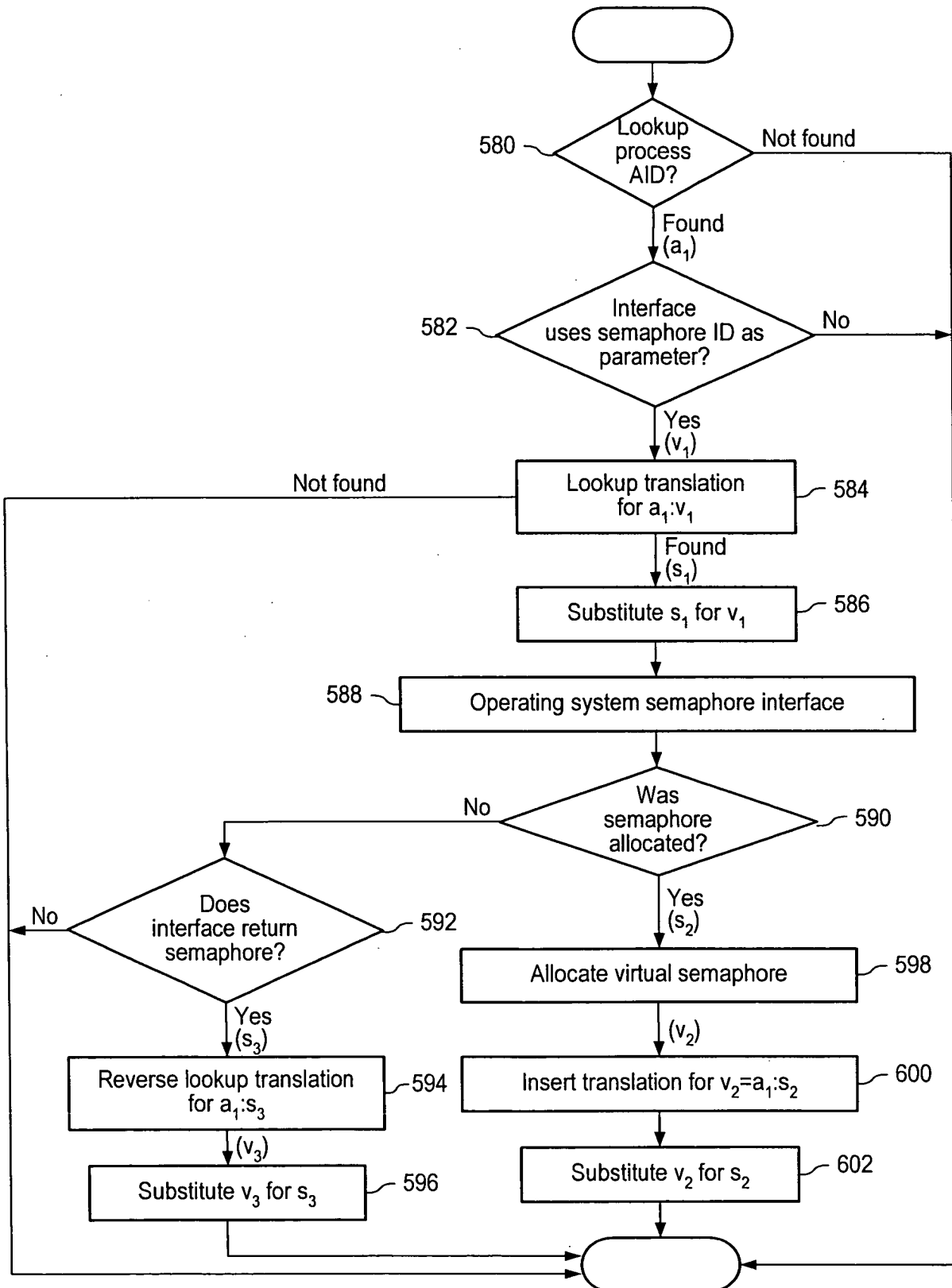
# Replacement Sheet



Flowchart describing creation of virtual translation tables

*Fig. 14*

## Replacement Sheet



Flowchart depicting translation of a virtual resource (i.e. semaphore)

Fig. 15

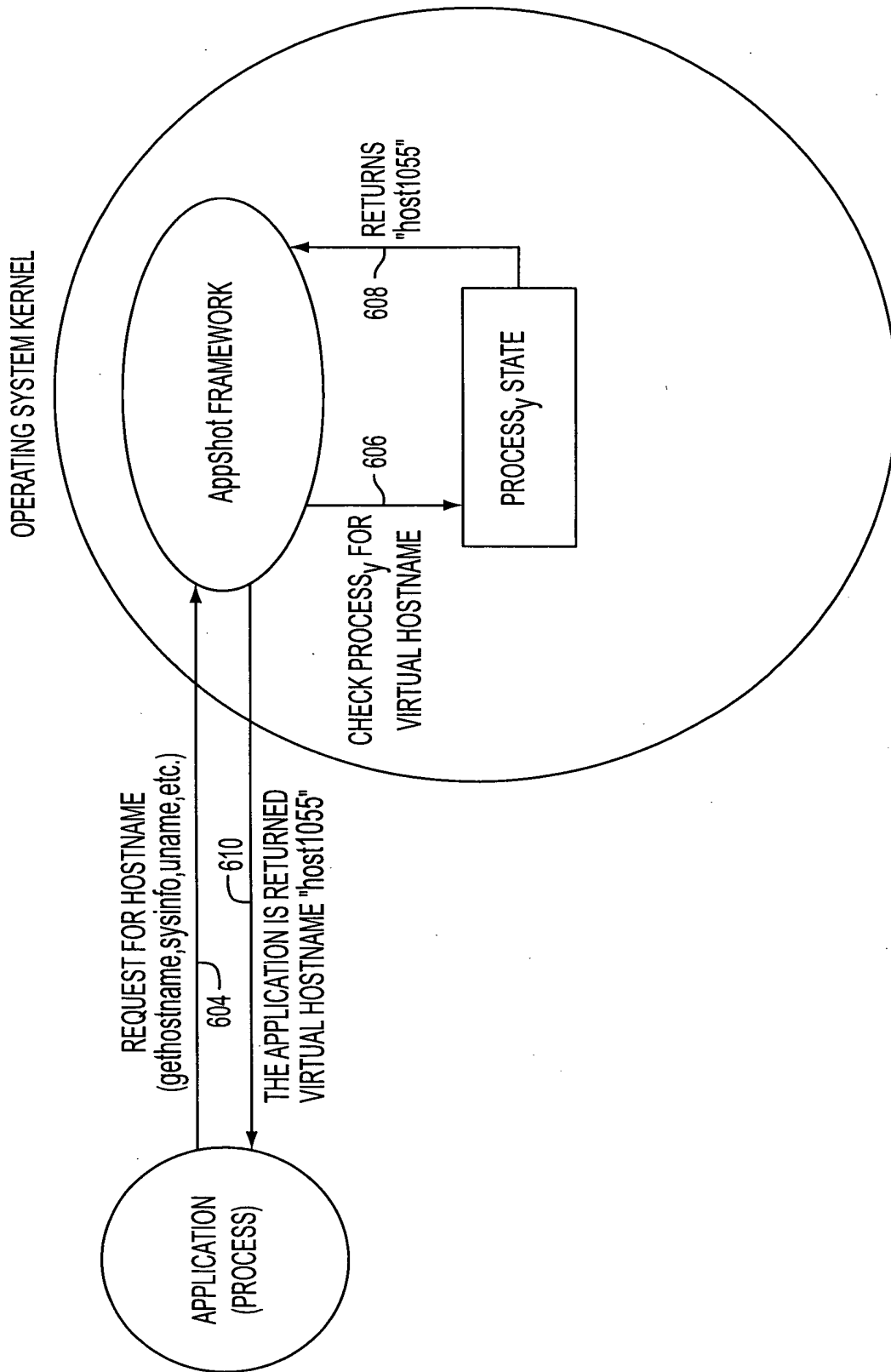


FIG. 16



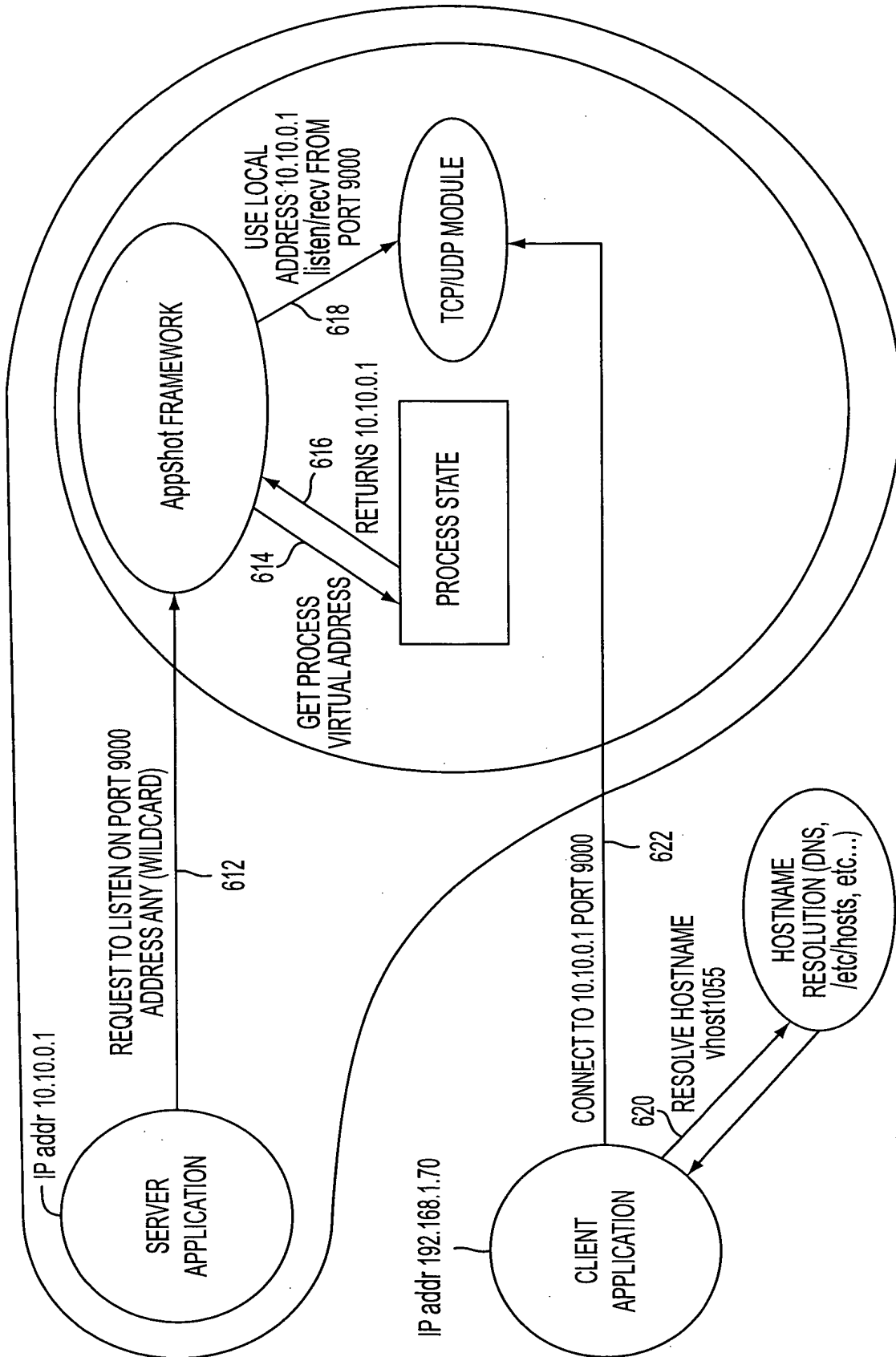


FIG. 17

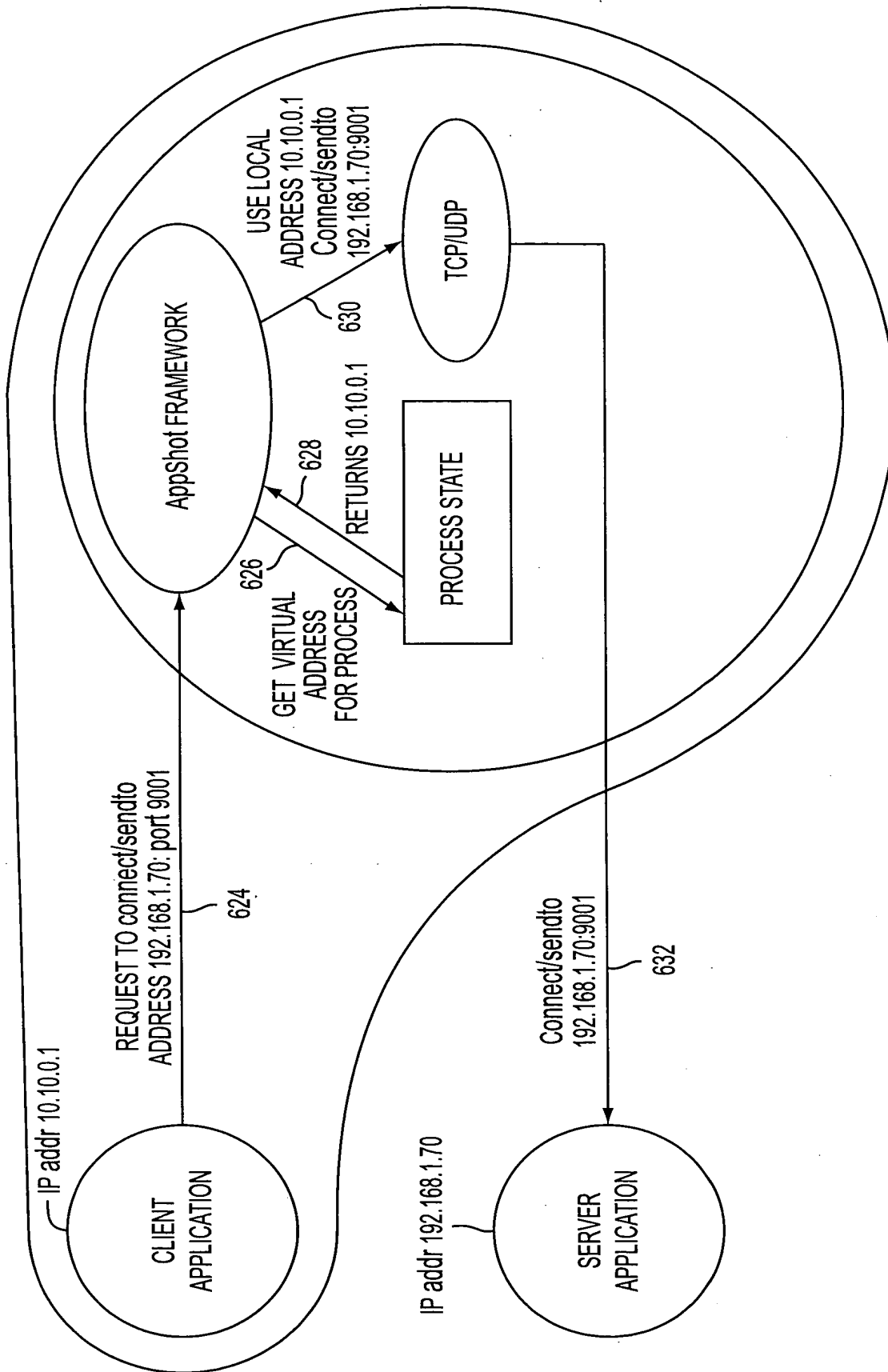


FIG. 18